

(Lack Of) Representation of Non Western World in process of creation of Web standards

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Abstract

World Wide Consortium (W3C) as an standard setting organization for the world wide web plays a very important role in shaping the web. We focus on the ongoing controversy related to Encrypted Media Extensions (EME) and found that there was a serious lack of participation from people from non western countries. We also found serious lack of gender diversity in the EME debate.

W3C is the organization which sets the standard for HTML 5. Recently it got surrounded by controversy due to the Encrypted Media Extensions (EME) draft specification (David Dorwin et al. 2016). EME aims to prevent piracy of digital video by making it hard to download the unencrypted video stream. But it also raises lots of issues regarding implementation in Free and Open Source Software, Interoperability, Privacy, Security, Accessibility and fair use. (Cory Doctorow 2016)

In this study we looked at aspects of the debate which both of the sides ignored, the third world! We found that out of 48 people who participated in the debate around EME on W3C's public-html mailing list, none of them were from the continents of Asia, Africa or South America. These regions make up almost 80 % of the world's population and more than 60 percent of world's internet users (Stats 2016). When a group of people doesn't get represented in the standard making process it is expected that their concerns don't get represented either. The representation of people is specially important in the EME debate because laws around Digital Rights Management around the world are different. For example Indian laws does not disallow manufacture and distribution of circumvention tools whereas the law in USA does (Prakash 2016b). The cultural norms around the world are quite different and also the conditions under which people use the internet are different. India has the lowest average internet speed across the world (Akamai 2016). A large of fraction of Indian population (37% in 2010) accesses internet through Cyber Cafés (TRAI 2016). These factors makes the ability to download digital content much more important for an Indian internet user than a North American or European internet user.

Methodology

We used `BigBang`¹ python package to download the archives of the `public-html` mailing list at W3C.² Our dump contains all the messages between 31st August 2010 to 15th May 2016. Then we filtered out all the emails with `EME`, `encrypted media` or `DRM` in the subject line. There were 472 such emails. We then de-duplicated the list of senders as some senders used multiple emails in the course of discussion. There were 48 unique senders after de duplication. Then we looked up their social media profiles (LinkedIn, Twitter, Github), personal website or page at employers site to determine the region they belong to and their gender. All the source code used for the analysis is available on our github repository.³

Result

Table 1: Regional Diversity

Region	Participant (%)	Email (%)
Africa	0 (0)	0 (0)
Asia	0 (0)	0 (0)
Australia and New Zealand	5 (10.4)	16 (3.4)
Europe	13 (27.1)	146 (30.9)
North America	30 (62.5)	310 (65.7)
South America	0 (0)	0 (0)
Total	48 (100)	472 (100)

As mentioned in the Introduction above there was absolutely no participation from the whole continents of Africa, Asia, or South America with most of the emails being sent by North Americans.

Table 2: Gender Diversity

Gender	Participant(%)	Email(%)
Male	47 (97.9)	466 (98.7)
Female	1 (2.1)	6 (1.3)
Total	48 (100)	472 (100)

¹<https://github.com/dataactive/bigbang>

²<https://lists.w3.org/Archives/Public/public-html/>

³https://github.com/hargup/eme_diversity_analysis

The debate inside W3C around EME also seriously lacked in gender diversity, which is typical of open communities.

Discussion and Future Work

The lack of diversity in W3C is not unique. (Graham, Straumann, and Hogan 2015) showed a significant western bias in Wikipedia, gender bias in Wikipedia has also a well known and is being actively worked upon. Internet Corporation for Assigned Names and Numbers has also been criticized for under representing interests of non North American and West European world (Prakash 2016a).

We hope that W3C and other organizations will increase the diversity in their standard making process so that global voices actually shape the global internet.

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